

# **The Impact of Credit Facilities Pricing Methods on the Profitability of Commercial Banks in Jordan**


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2009 ،

## التفويض

أنا عماد عدلي فطايير  
أفوض جامعة عمان العربية للدراسات العليا بتزويد نسخ من رسالتي للمكتبات أو  
المؤسسات أو الهيئات أو الأشخاص عند طلبها.

الاسم : عماد عدلي فطايير

التوقيع:  عماد عدلي فطايير

التاريخ: 2009/7/11

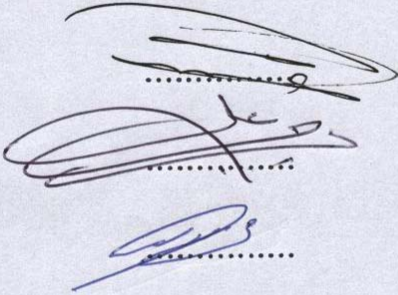
## قرار لجنة المناقشة

نوقشت هذه الرسالة وعنوانها ( أثر أساليب تسعير التسهيلات الائتمانية على ربحية البنوك التجارية في الأردن ).

وأجيزت بتاريخ: 2009 / 5 / 17

### أعضاء لجنة المناقشة:

#### التوقيع



الأستاذ الدكتور عبد المنعم السيد علي / رئيساً

الدكتور محمد وهيب العلمي / مشرفاً وعضواً

الدكتورة منى مولا / عضواً

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| <b>142</b> |   |

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| <b>30</b> | - 2001 )<br>( 2006 | <b>1-2</b> |
| <b>35</b> | - 2001 )<br>( 2006 | <b>2-2</b> |
| <b>44</b> | 2                  | <b>3-2</b> |
| <b>46</b> |                    | <b>4-2</b> |
| <b>57</b> | - 2001 )<br>( 2006 | <b>5-2</b> |
| <b>59</b> | ( 2006 -2001 )     | <b>6-2</b> |
| <b>67</b> | - 2001 )<br>( 2006 | <b>7-2</b> |
| <b>78</b> |                    | <b>8-2</b> |
| <b>86</b> |                    | <b>1-3</b> |
| <b>88</b> |                    | <b>2-3</b> |
| <b>89</b> |                    | <b>3-3</b> |
| <b>89</b> |                    | <b>4-3</b> |
| <b>90</b> |                    | <b>5-3</b> |
| <b>92</b> |                    | <b>1-4</b> |
| <b>95</b> |                    | <b>2-4</b> |
| <b>98</b> |                    | <b>3-4</b> |

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|            |  |             |
| <b>105</b> |  | <b>4-4</b>  |
| <b>110</b> |  | <b>5-4</b>  |
| <b>114</b> |  | <b>6-4</b>  |
| <b>120</b> |  | <b>7-4</b>  |
| <b>121</b> |  | <b>8-4</b>  |
| <b>122</b> |  | <b>9-4</b>  |
| <b>123</b> |  | <b>10-4</b> |
| <b>123</b> |  | <b>11-4</b> |
| <b>124</b> |  | <b>12-4</b> |
| <b>125</b> |  | <b>13-4</b> |
| <b>126</b> |  | <b>14-4</b> |
| <b>126</b> |  | <b>15-4</b> |
| <b>127</b> |  | <b>16-4</b> |
| <b>128</b> |  | <b>17-4</b> |



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| <b>23</b> |  | <b>1-2</b> |
| <b>87</b> |  | <b>1-3</b> |

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| <b>143</b> |  | <b>1</b> |
| <b>172</b> |  | <b>2</b> |

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# **The Impact of Credit Facilities Pricing Methods on the Profitability of Commercial Banks in Jordan**

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**Supervised by:**

**Dr. Mohammad Waheeb Al-Alami**

**2009**

## **Abstract**

This study aimed to acknowledge the impact of credit facilities pricing methods on the profitability of commercial banks in Jordan measured by return on investment, return on assets and return on owners' equities. The study hypotheses were phrased in order to find out a statistically significant relationship between credit facilities pricing method and the profitability of these banks in order to reach one of the pricing methods that is most influencing profitability. This study depended on data from commercial banks' annual reports, as well as annual and statistical bulletins from the Central Bank of Jordan during the period ( 2001-2006 ). The study sample consisted of seven commercial banks listed in the Amman Stock Exchange where enough data were available during the study period.

The statistical methods were used to analyze data and test hypotheses by analyzing study sample specifications, the reliability of the study instrument validity, in addition to using means, standard deviations, frequencies, percentages and using one-sample T-test.

The study results summarized as there is a statistically significant relationship between credit pricing methods and the profitability. Most of important recommendations are conducting a similar study for other loans pricing methods to determine their impact on the profitability of commercial banks, and the necessity of setting credit information law as an interest rate setting requirements to improve the credit decision and encourage borrowers to payoff their financial commitments to commercial banks and the lending finance companies, considering the rights of both lenders and borrowers.

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**1-1****2-1****3-1****4-1****5-1****6-1****7-1****8-1**

## ( Intorduction ) : 1-1

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 .( 31 2002 1999 )  
 2000 )  
 .( 38  
 .( 1993 )  
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 .( 40 . 2000

.( 59 . 1989 )

2001

.( Koch & Macdonald, 2003, P. 195-196 )

.( Hannagan, 2002 )

2005

( LIBOR )

2005

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.( 2006

**( Study Problem & Elements ) :**

**2-1**

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-5

**( Procedural Definitions ) : 3-1**

**( Reference Pricing ) :**

.( 2005 )

**( Arbitrage Pricing ) :**

**( Money Market-Based Pricing ) :**

.( 74 . 2003 )

**( ABC / Cost-Plus Pricing ) :**

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.( Taylor, 2002, P. 64 )

**( Risk-Based Pricing ) :**

)

.( Quintana, 2004 ; 2004

**( Return on Investment ) :**

198 . 2004

)

.( 329 . 2006

**( Return on Assets ) :**

.( 331 . 2006 )

**( Return on Equities ) :**

.( Brigham & Ehrhardt, 2005, P.454 )

( ) ( )

**( Study hypotheses ) : 4-1**

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**( Significance of Study ) : 5-1**

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( Study Objectives ) :

6-1

( Study Determinants ) :

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2006 -2001

**( Study plan ) :****8-1**

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**1-2****2-2****3-2****4-2****5-2****6-2**

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.( 2007 )

.( 1983 )



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, ( 42 2000

( 64 1996 )

( Sparrish, 2006 )

( The Concept of loans pricing ) :

2-2

.( 149 2007 )

:( 149 2007 )

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.( 2007 )

( 245 2000 )

( 41 1987 )

( 3 1993 )

)  
:( 2002/14

**( Objectives of Loans Pricing ) :**

**3-2**

)

Rose & Hudgins, 2008, ; 136 -135 2005 117 1996  
:( p.122

**( Growth ) :** -

**( Profit ) :** -

**( Return on Investment ) :** -

**( Cashflow ) :** -

( Reduction of Competitors ) :

-A

( Credit Cost Management ) :

-

( )

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4-2

.( Haskins&Sells, 1974, p.131 )

:

( Internal Factors )

4-2-1

2005

1993

)

:( 260

2001

1988

99

1999

143-137

( Marketing Objectives ) :

-

( Marketing mix strategy ) : -

) (

( Return on Investment & Cost ) : -

( Bank's Considerations ) : -

## 4-2-2 العوامل الخارجية ( External Factors )

( ) ; Hamphtho, 2007 p.446 ; Reed & Gill, 1989, pp.259 ; 1995  
:( Cochran, 2004, p.162 ;

( The Country's Policies ) : -

( Market Factors & Elasticity of : -  
Demand for Loans )

( )

( Exchange Rates ) : -

.( 214 1999 )

( Performance Cost of banking Services ) : -

( Cost of funds Used in loans :  
Financing ) - 4



**( Potential Cost of Risks ) :**

-

( Mcdonald & Mckinely, 2007 )

**( Technological Advance ) :**

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.( 2001      2005      )

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:( 2008/4/18

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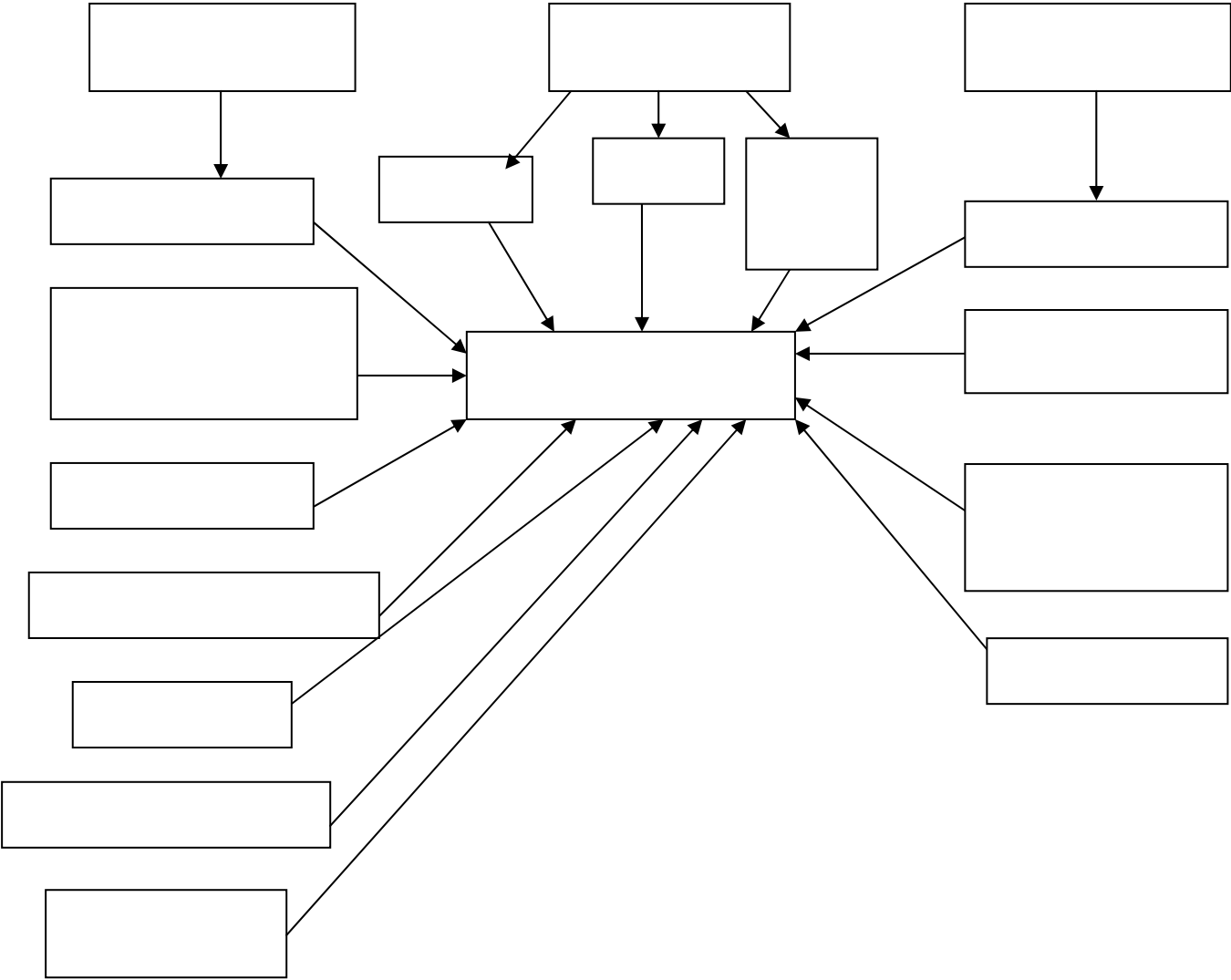
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(6

( 1-2 )



## ( Loans Pricing : 5-2 Methods in Jordanian Commercial Banks )

83 1989 )  
( Marto, 1988 ;  
%2

.( 84 1989 )

( Reference Pricing ) : .1

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( 2005  
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| 1993                       | 2006                                  | )         | ,    |  |
|                            | :( James, 1982 ; Davidson, 2001 ; 590 |           | 2000 |  |
|                            |                                       |           | -    |  |
| 2006                       | )                                     |           |      |  |
| James, 1982 ;Davidson, 590 | 2000                                  | 1993      |      |  |
|                            |                                       | .( 2001 ; |      |  |
|                            |                                       |           | -    |  |
|                            |                                       | .         |      |  |
| 1993                       | )                                     |           |      |  |
| :( James, 1982 ; 2006      | 591 - 590                             | 2000      |      |  |
|                            | %0.25                                 |           | -    |  |
| .                          |                                       |           |      |  |
|                            |                                       |           | -    |  |
|                            | .                                     |           |      |  |
| .                          |                                       |           | -    |  |

( Arbitrage Pricing ) : .2

1988 )

.( Watanabe, 2005 ; Guiltinan, 2005 ; 1980

( Arbitrager ) ( )

( Loan Intrinsic Value )

Dermine, 1996 ; Calomiris&Thanaunt, 2005 ; )

.( Jarrow&Deventer, 1998

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.( 2008/5/20 -18

1988 )

:( 2008/5/20 -18

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( **Money Market - Based Pricing** ) :( **3** )

.( 74 2003 )

Hampthon, )

.( 2007, p.460

)

Blanchfield & Oser, 1975, p. 135 ; Edwards & Khan, 1985, 237 2000  
 .( pp.190-192

)

.( 1993 597 2000

:( Reilly & Brown, 2006, P.240 ; Brigham & Ehrhardt, 2005, P 156 )

$$r_i = r_{RF} + \beta ( r_M - r_{RF} )$$

$r_i$

$r_{RF}$

$$\beta ( r_M - r_{RF} )$$

.( Fabozzi & Modigliani, 1994, pp. 346-348 )

( 1-2 )

( 2006 – 2001 )

|       | 6     |       | 6     |      |
|-------|-------|-------|-------|------|
| %6    | %3.92 | %4.25 | %4    | 2001 |
| %5.2  | %2.95 | %5.25 | %3.45 | 2002 |
| %3.5  | %2.05 | %4.58 | %2.15 | 2003 |
| %4.75 | %3.36 | %7.05 | %3.2  | 2004 |

|             |              |              |              |             |
|-------------|--------------|--------------|--------------|-------------|
| <b>%7.5</b> | <b>%6.55</b> | <b>%8.82</b> | <b>%6.95</b> | <b>2005</b> |
| <b>%8.5</b> | <b>%6.73</b> | <b>%7.66</b> | <b>%6.86</b> | <b>2006</b> |

,2002 ,2001 ,( ) :

.( 2006 ,2005 ,2004 ,2003

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.( 105 2004 )

Reilly & Brown, 2006, )

.( P.20

Rose & 593-592 ,2000 , )

:( Hudgins, 2008, pp.149-152 ;



Miller & 2002 1980 1993 )  
 Pulsinelli,1989,p.93 ; Saunders & Cornett, 2006, p.298 ; Koch &  
 .( Macdonald, 2003, p. 677

:

.( 225 2006 )

2000 )

:( Allen & et al, 1989 ; Hutchison, 1995 ; 269

-  
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.( 225 2006 )

2000 )

. ( Allen&et al, 1989 ; Hutchison, 1995 ; 269

Saunders & Cornett, 2006, p.298 ; Mester & Saunders, 1995 ; Koch& )  
 Rose & ,Macdonald, 2003, p. 678  
 :( Hudgins, 2008, p. 155

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Koch & Macdonald, )

( 2003, p. 679 ; Gultinan, 2005

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( 2006-2001 )

| 3   |       | 3     |       |       |    |      |
|-----|-------|-------|-------|-------|----|------|
|     |       |       |       |       |    |      |
| %14 | %7.25 | %14   | %7.25 | %14   | %7 | 2003 |
| %14 | %6.5  | %14   | %6.5  | %14   | %6 | 2004 |
| %14 | %7    | %14   | %6.25 | %14   | %6 | 2005 |
| %15 | %6    | %15.5 | %6    | %15.5 | %6 | 2006 |

. - , : -  
2002 -2001 -

.( Browne, 2001 )

.( Mayer & et al, 2004, p.205 )

.( 346 2008 )

.( 1975 )

.( 1998 )

**( ABC / Cost – Plus Pricing ) : .4**

+

.( Taylor, 2002, p.64 )

1995 ) 4

Diette, 2007 ; Haskins & Sells, 1974, p.p 45-49 ; Rose & 57 2000  
:( Hudgins, 2008, p.p 158-160

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Rose & Hudgins, 2008, p. 162 ; Miller & )

:( Pulsinelli, 1989, p. 99 ; Taylor, 2002, p.65

$$+ \quad + \quad =$$

$$+$$

$$.$$

Wayne, 2006, p. 387 ; Walker, )

.( 1975, p. 232 ; Scott, 1998, p.88

)

.( 2008/6/25 -20

:( 2003 1988 )

( Cost of Lending ) : -

( Time Loans ) : -

( Risks ) : -

)

Cole, 1998, pp.103-107 ; 1989 2003 1996 1975

:( Hutchison, 1995 ; Goveidarjan & John, 1988 ; Liebich, 1995 ;

( **Direct Cost – Based Pricing** ) : .

( Absorption )

.( Contribution )

**Differential Cost – Based** ) :

( **Pricing**

**Cost of Fund – Based ) :**

**( Pricing**

.( John & et al, 2005, pp. 422-425 )

566 2000 )

:( 285 - 281 . 2006

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.( , , )

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.( Matten, 1996, pp. 89-91 ; 165-163 . 1988 )

.( 566 2000 )

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( Risk – Based Pricing ) : .5

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.( Quintana, 2004 ; 2004

( Britting, 2006 )

komorad, 2002 ; )

( Caire & kossman, 2003

4  
 6 1981 2004 )  
 :( Quintana, 2004 ; Gultinan, 2005 ; 99 ,2007 277 2000

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119 -118

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; 2005 )  
 International Convergence of Capital Measurement and Standard, 1988,  
 :( p.22

( 3-2 )

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|      | B-   | +BB-B- | +BBB –<br>BBB- | +A– A- | +AAA –<br>AA- |   |
|------|------|--------|----------------|--------|---------------|---|
| 100% | 150% | 100%   | 50%            | 20%    | 0%            | % |

Source: International Convergence of Capital Measurement and Standard (BIS),  
<http://www.bis.com>, Entry Date: 15/9/2008.

( )



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:( Berlin&amp;Mester, 2007 ; 2003

$$= \times ( + 1 ) \times [ 1 - ( + 1 ) \times ( + 1 ) ] - ق$$

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$$= -$$

$$= -$$

$$= -$$

$$= -$$

%30

%3

%48 %65 %23

%60 %40 %35

%5

%55

15000000 2000000 5000000 10000000

: ( )

$$= \times ( 0.05 + 1 ) \times [ 1 - ( 0.03 + 1 ) \times ( 0.30 + 1 ) ] - [ 1 - ( 0.03 + 1 ) \times ( 0.30 + 1 ) ] \times ( 0.05 + 1 ) \times 10000000$$

**59500 = 10000000 × 0.35**  
**%0.59**

$$= \times ( 0.05 + 1 ) \times [ 1 - ( 0.03 + 1 ) \times ( 0.23 + 1 ) ] - [ 1 - ( 0.03 + 1 ) \times ( 0.23 + 1 ) ] \times ( 0.05 + 1 ) \times 5000000$$

**598775 - = 5000000 × 0.40**  
**%12 -**

$$= \times ( 0.05 + 1 ) \times [ 1 - ( 0.03 + 1 ) \times ( 0.56 + 1 ) ] - [ 1 - ( 0.03 + 1 ) \times ( 0.56 + 1 ) ] \times ( 0.05 + 1 ) \times 20000000$$

**742800 = 20000000 ×**  
**%3.71**

$$- [1 - (0.03 + 1) \times (0.48 + 1)] \times (0.05 + 1) \times 15000000 =$$

$$.062 \quad 9300 = 15000000 \times 0.55$$

%13

%13 :

$$\%13 = \quad \%1 = \%12 - \%13 = \quad \%13.595 = \%0.595 +$$

$$.062 = \%0.062 + \%13 = \quad \%16.71 = \%3.71 +$$

%6.5

:

%1

$$-8) \quad (7) \quad (6 - 4) \quad (3 - 1)$$

(10

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(4-2)

| +                 | =  | ( )   |
|-------------------|----|-------|
| %6.5 = %0 + %6.5  | %0 | (3-1) |
| %7.5 = %1 + %6.5  | %1 | (4)   |
| %8.5 = %2 + %6.5  | %2 | (5)   |
| %9.5 = %3 + %6.5  | %3 | (6)   |
| %10.5 = %4 + %6.5 | %4 | (7)   |
| %11.5 = %5 + %6.5 | %5 | (8)   |
| %12.5 = %6 + %6.5 | %6 | (9)   |
| %13.5 = %7 + %6.5 | %7 | (10)  |

%2 -1

+

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( 127 2000 )

( )

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Watanabe, 2005 ; Eldberg, 2003 ; Quintana, 2004 ; Wilson, )

:( 1997

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Schreiner, 2002 ; Mays, 2006 )

:( 2003

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6-2

$$\begin{array}{r}
 \text{:( 151-150 } \quad 2007 \quad \text{)} \\
 \text{( } \quad \text{ )} \quad \text{(+)} \\
 \text{( } \quad \text{ )} \quad \text{(-)} \\
 \hline
 \text{( } \quad \text{ )}
 \end{array}$$

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( 151 2007 )

.( 152-151 2007 ) %73 %20

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**( Impact of Reference Pricing on Profitability ) :****-1**

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( Impact of Arbitrage Pricing on Profitability ) :

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( Impact of Rediscount Rate on :

Profitability )

.( 185 2005 )

( Impact of Open Market :

Opertaions on Profitability )

( **Impact of Legal Reserve Ratio on : Profitability** ) .

.( 2002 )

.( 1991 )

( **Impact of Competition** ) :

Edward & Khan, 1985, )

.( p.192

.( 1995 )

)

( 46 1993

Milbowne & )

( Curnberworth, 1991, p. 175

.

.( Dine, 2000 ; 2006 )

**( Impact of Cost – Plus Pricing on Profitability ) : .4**

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( 5-2 )

( 2006-2001 )

| 2006   | 2005   | 2004  | 2003   | 2002  | 2001   |   |
|--------|--------|-------|--------|-------|--------|---|
| %0.87  | %0.47  | %0.36 | %0.5   | %0.91 | %1.06  |   |
| %0.99  | %0.83  | %0.74 | %0.88  | %1.84 | %2.91  |   |
| %5.13  | %3.52  | %2.5  | %2.75  | %3.97 | %5.19  |   |
| %2.33  | %1.61  | %1.2  | %1.38  | %2.24 | %1.11  |   |
| %6.3   | %3.5   | %3.4  | %1.6   | %1.8  | %1.8   |   |
| %3.97- | %1.89- | %2.2- | %0.22- | %0.44 | %0.69- | * |

.( 2006 ,2005 ,2004 ,2003 ,2002 ,2001 )

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2003 2000 )

:( Cyree, 1996 ; Roland, 1995 ; 109 2005 231 1990

( **Commissions** ) :

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.( 133 2000

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( 6-2 )

.( 2006 -2001 )

| 2006   | 2005   | 2004  | 2003  | 2002  | 2001   |  |
|--------|--------|-------|-------|-------|--------|--|
| 170.18 | 185.97 | 90.48 | 74.13 | 68.74 | 66.586 |  |
| 14.25  | 15,379 | 13.98 | 10.71 | 13.66 | 13.01  |  |
| 11.73  | 11.36  | 9.63  | 9.23  | 8.11  | 8.67   |  |
| 9.95   | 9.562  | 8.04  | 6.99  | 5.83  | 7.057  |  |
| 8.92   | 6.13   | 5.05  | 3.88  | 3.06  | 3.02   |  |
| 19.28  | 15.132 | 9.04  | 7.83  | 7.7   | 7.64   |  |
| 4.61   | 3.16   | 1.41  | 1.25  | 2.28  | 3.68   |  |

,2001 )

-

.( 2006 ,2005 ,2004 ,2003 ,2002

( Fixed &amp; Variable Costs ) :

.

( Assets :

.

composition &amp; Expansion of Barnches and Bank Services )

( Liabilities Pricing ) :

( Cost of Loans Provisions ) :

( Deposits Pricing Policy ) :( )

) ( )  
(

( Identifying the cost of lending in Accordance With :

Maturity Date not Lead to a Decrease in Loan Amount Granted )

( )



$$\begin{aligned} & \cdot \\ & \cdot \\ & + \\ & ( \quad ) \end{aligned} \quad ( \quad )$$

( )

**( Impact of Risk – Based Pricing on Profitability ) :**

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( 2003 )

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( **Assets Quality** ) :

( Paresis, 2003 ; Bluhm, 2002 )

12 – 10

. 30 – 15

**( Volume of Loans Granted ) :**

.( 1996 )

**( Life Cycle of the Loan ) :**

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2007

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.( Repullo&amp;Suarez, 2004 ;

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( 7-2 )

( 2006-2001 )

| 2006   | 2005   | 2004   | 2003   | 2002   | 2001   |  |
|--------|--------|--------|--------|--------|--------|--|
| %23.26 | %16.53 | %17.36 | %18.70 | %17.08 | %16.8  |  |
| %17.83 | %15.91 | %11.28 | %9.6   | %8.08  | %8     |  |
| %15.22 | %16.2  | %14.78 | %13.89 | %13.96 | %12.94 |  |
| %15.68 | %15.51 | %16.23 | %13.82 | %12.7  | %12.4  |  |
| %13.13 | %15.61 | %15.6  | %15.6  | %18.1  | %17    |  |
| %32.06 | %17.31 | %20.87 | %27.71 | %29.5  | %30.6  |  |
| %17.4  | %19.59 | %21.12 | %39.48 | %29    | %19.5  |  |

,2003 ,2002 ,2001 )

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.( 2006 ,2005 ,2004

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: 2-2

.1 :James ( 1982 )

.“An Analysis of Bank Loan Rate Indexation”

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.2 :Govindarjan & Anthony ( 1988 )

.“How Firm Use Cost Data in Pricing Decisions”



.4 **Hutchison ( 1995 )**:

“Retail Bank Loan Pricing: An Intertemporal Asset Pricing  
Approach”

**:Roland ( 1995 ) .5**

."Profit Persistence in Large U.S Bank Holding Companies"

106

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**:Bexely & Joe ( 1999 ) .6**

.Risk Management in Pricing A Financial Product

4



**:Parasad & Harker ( 2005 ) .7**

.”Pricing Online Banking services Amid Network Externalities”

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| :    |            |
| .    | <b>1-3</b> |
| .( ) | <b>2-3</b> |
| .    | <b>3-3</b> |
| .    | <b>4-3</b> |
| .    | <b>5-3</b> |

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**( Study population & Sample ) : 1-3**

**( Study population ) : 1-3-1**

( 2006 – 2001 )

14

**( Sample Unit ) :( ) 1-3-2**

**( Study Sample ) : 1-3-3**

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| 1998                                  | : | •          |
| 1999                                  | : | •          |
| 2004                                  | : | •          |
| 2006                                  | : | •          |
| <b>( Data Collection Methods ) :(</b> |   | <b>2-3</b> |
| :                                     |   |            |
| <b>( Secondary Sources ) :</b>        |   | -          |
| .                                     |   |            |
| <b>( Primary Sources ) :</b>          |   | -          |
| 2006 - 2001                           |   |            |

**( Reliability & Validity ) : 3-3**

**( Validity ) : 3-3-1**

10 . 10  
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**( Reliability ) : 3-3-2**

( %85.76 )  
%60 (%90.38 )  
( %90 )

**( Study Procedures, : 4-3**

**Study Model, and Statistical Processing )**

**( Study Procedures ) : 4-3-1**



( 131 )

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|     |     |  |
|-----|-----|--|
|     |     |  |
| 10  | 25  |  |
| 20  | 20  |  |
| 16  | 19  |  |
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| 100 | 128 |  |

( Study Variables ) : 4-3-2

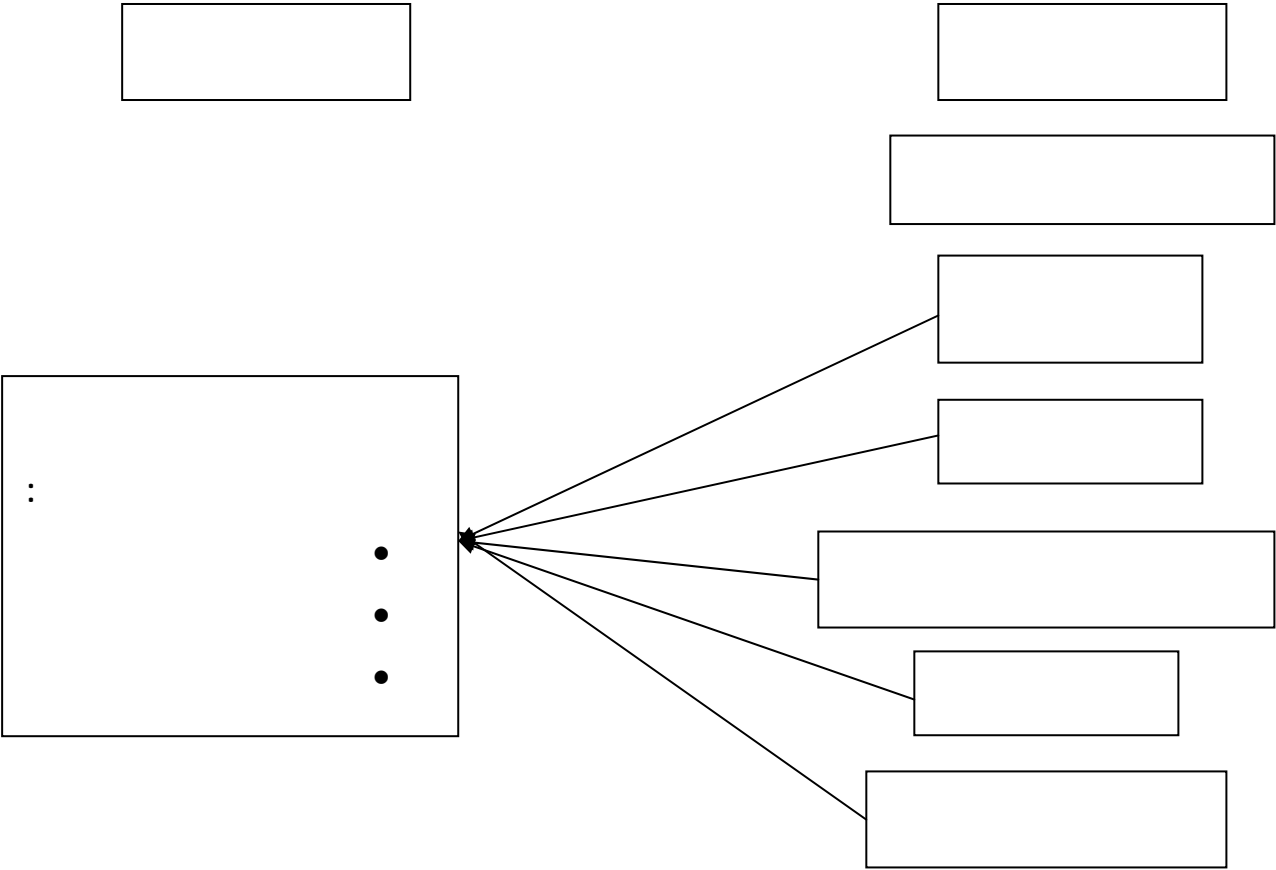
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( Study Model ) : 4-3-3

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( Statistical Processing Methods ) :

4-3-4

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( Analysis of Sample Specifications ) :

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|      |     |         |
|------|-----|---------|
|      |     |         |
| %15  | 15  | 25      |
| %40  | 40  | 32 -52  |
| %26  | 26  | 40 - 33 |
| %19  | 19  | 40      |
| %100 | 100 |         |

%4025

%15

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40

.2 :

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%39

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( 3-3 )

|      |     |  |
|------|-----|--|
|      |     |  |
| %16  | 16  |  |
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.3 :

10 ) %27 ( 5 – 1 ) %34  
%21 ( 10 – 5 )  
15 %18 ( 15 –

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( 4-3 )

|      |     |         |
|------|-----|---------|
|      |     |         |
| %34  | 34  | 5 – 1   |
| %27  | 27  | 10 – 5  |
| %21  | 21  | 15 – 10 |
| %18  | 18  | 15      |
| %100 | 100 |         |

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( 5-3 )

|             |            |                |
|-------------|------------|----------------|
|             |            |                |
| <b>%35</b>  | <b>35</b>  | (            ) |
| <b>%38</b>  | <b>38</b>  |                |
| <b>%27</b>  | <b>27</b>  | (            ) |
| <b>%100</b> | <b>100</b> |                |

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|  |   |        |      |  |     |
|--|---|--------|------|--|-----|
|  |   |        |      |  |     |
|  | 1 | 1.1579 | 4.15 |  | -9  |
|  | 2 | 1.2382 | 4.11 |  | -11 |
|  | 3 | 0.8703 | 4.10 |  | -10 |
|  | 4 | 1.0605 | 4.08 |  | -4  |
|  | 5 | 0.9455 | 4.07 |  | -1  |



|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 6  | 0.9791 | 4.03 |  | -15 |
|  | 7  | 0.9092 | 3.96 |  | -5  |
|  | 8  | 0.9828 | 3.94 |  | -3  |
|  | 9  | 0.9519 | 3.77 |  | -8  |
|  | 10 | 1.0965 | 3.64 |  | -13 |
|  | 11 | 1.2373 | 3.62 |  | -7  |
|  | 12 | 1.2663 | 3.45 |  | -14 |
|  | 13 | 1.2168 | 3.29 |  | -2  |

|  |    |        |      |          |     |
|--|----|--------|------|----------|-----|
|  |    |        |      |          |     |
|  | 14 | 1.3564 | 3.28 | .        | -12 |
|  | 15 | 0.3487 | 1.86 | :        | -16 |
|  | 16 | 0.5000 | 1.45 | ( )      | -17 |
|  | 17 | 0.4902 | 1.39 | ,<br>( ) | -18 |

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( 18 ) ( 1.45 )  
.( 1.39 )

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|  |   |        |      |  |     |
|--|---|--------|------|--|-----|
|  |   |        |      |  |     |
|  | 1 | 0.9987 | 4.25 |  | -27 |
|  | 2 | 0.9516 | 3.94 |  | -25 |
|  | 3 | 1.0568 | 3.88 |  | -28 |
|  | 4 | 1.1315 | 3.85 |  | -31 |
|  | 5 | 1.0156 | 3.83 |  | -30 |

|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 6  | 1.1440 | 3.62 |  | -29 |
|  | 7  | 1.2988 | 3.51 |  | -26 |
|  | 8  | 1.2832 | 3.5  |  | -23 |
|  | 9  | 1.2663 | 3.45 |  | -19 |
|  | 10 | 1.3170 | 3.23 |  | -21 |
|  | 11 | 1.6878 | 3.2  |  | -22 |
|  | 12 | 1.3090 | 3.06 |  | -20 |
|  | 13 | 1.4659 | 2.45 |  | -24 |
|  | 14 | 0.4852 | 1.37 |  | -33 |

|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 15 | 0.4761 | 1.34 |  | -32 |
|  | 16 | 0.4726 | 1.33 |  | -34 |

( 2-4 )

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|  |   |        |      |  |     |
|--|---|--------|------|--|-----|
|  |   |        |      |  |     |
|  | 1 | 0.8582 | 4.47 |  | -44 |
|  | 2 | 0.9059 | 4.26 |  | -57 |
|  | 3 | 1.0162 | 4.24 |  | -35 |
|  | 4 | 1.2366 | 4.19 |  | -38 |
|  | 5 | 0.9214 | 4.14 |  | -36 |
|  | 6 | 1.1072 | 4.08 |  | -51 |

|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 7  | 1.02   | 4.01 |  | -47 |
|  | 7  | 0.9374 | 4.01 |  | -60 |
|  | 8  | 0.8867 | 3.96 |  | -59 |
|  | 9  | 1.0088 | 3.95 |  | -56 |
|  | 10 | 0.9438 | 3.91 |  | -41 |
|  | 11 | 1.1146 | 3.9  |  | -55 |
|  | 12 | 1.1283 | 3.86 |  | -37 |
|  | 13 | 0.9671 | 3.79 |  | -49 |

|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 11 | 1.1146 | 3.9  |  | -55 |
|  | 12 | 1.1283 | 3.86 |  | -37 |
|  | 13 | 0.9671 | 3.79 |  | -49 |
|  | 14 | 1.2880 | 3.76 |  | -61 |
|  | 15 | 1.1924 | 3.75 |  | -39 |
|  | 16 | 1.1641 | 3.72 |  | -63 |
|  | 17 | 1.1360 | 3.68 |  | -50 |



|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 18 | 1.1725 | 3.67 |  | -45 |
|  | 19 | 1.2242 | 3.58 |  | -64 |
|  | 20 | 1.2695 | 3.38 |  | -54 |
|  | 21 | 1.4431 | 3.28 |  | -46 |
|  | 22 | 1.3622 | 3.27 |  | -52 |
|  | 23 | 1.5267 | 3.15 |  | -58 |
|  | 24 | 1.4390 | 3.01 |  | -43 |
|  | 25 | 1.3846 | 2.89 |  | -40 |
|  | 26 | 1.5487 | 2.84 |  | -62 |

|  |    |        |      |  |     |
|--|----|--------|------|--|-----|
|  |    |        |      |  |     |
|  | 27 | 1.2673 | 2.7  |  | -42 |
|  | 28 | 1.3817 | 2.5  |  | -48 |
|  | 29 | 1.5923 | 2.49 |  | -53 |
|  | 30 | 0.6681 | 1.91 |  | -67 |
|  | 31 | 0.3943 | 1.81 |  | -69 |
|  | 32 | 0.7355 | 1.62 |  | -65 |
|  | 33 | 0.4924 | 1.6  |  | -72 |

|  |    |        |      |   |     |
|--|----|--------|------|---|-----|
|  |    |        |      |   |     |
|  | 34 | 0.6093 | 1.55 |   | -66 |
|  | 35 | 0.4989 | 1.44 | : | -68 |
|  | 36 | 0.4927 | 1.4  |   | -71 |
|  | 37 | 0.4688 | 1.32 | , | -70 |
|  | 38 | 0.4352 | 1.25 | , | -73 |

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( 4.47 – 2.49 )

%23

( 44 ) .( 1.91 – 1.25 )

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( 4.14 )

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( 4.08 )

( 59 )

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|           |          |           |          |           |
|-----------|----------|-----------|----------|-----------|
|           | ( 3.95 ) |           | ( 56 )   | ( 3.96 )  |
|           | ( 55 )   | ( 3.91 )  |          | ( 41 )    |
|           |          | ( 37 )    | ( 3.9 )  |           |
|           |          | ( 49 )    |          | ( 3.86 )  |
| .( 3.76 ) |          |           | ( 61 )   | ( 3.79 )  |
| ( 3.75 )  |          |           |          | ( 39 )    |
|           | ( 3.72 ) |           |          | ( 63 )    |
| ( 45 )    |          | ( 3.68 )  |          | ( 50 )    |
|           | ( 64 )   | ( 3.67 )  |          |           |
|           |          | ( 54 )    | ( 3.58 ) |           |
| ( 3.28 )  |          |           | ( 46 )   | ( 3.38 )  |
|           | ( 3.27 ) |           |          | ( 52 )    |
| ( 43 )    |          | ( 3.15 )  |          | ( 58 )    |
|           | ( 40 )   | ( 3.01 )  |          |           |
|           | ( 62 )   | ( 2.89 )  |          |           |
|           |          | ( 42 )    | ( 2.84 ) |           |
|           |          | ( 48 )    | ( 2.7 )  |           |
|           |          |           | ( 53 )   | ( 2.5 )   |
| ( 1.91 )  |          |           | ( 67 )   | ( 2.49 )  |
|           | ( 1.81 ) |           |          | ( 69 )    |
| ( 72 )    |          | ( 1.62 )  |          | ( 65 )    |
|           | ( 66 )   | ( 1.6 )   |          |           |
|           | ( 68 )   | .( 1.55 ) |          |           |
|           |          | ( 71 )    | ( 1.44 ) |           |
|           |          | ( 70 )    |          | ( 1.4 )   |
|           |          | ( 73 )    |          | ( 1.32 )  |
|           |          |           |          | .( 1.25 ) |

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( 4-4 )

|  |   |        |      |  |     |
|--|---|--------|------|--|-----|
|  |   |        |      |  |     |
|  | 1 | 0.8768 | 4.33 |  | -86 |
|  | 2 | 0.8572 | 4.15 |  | -74 |
|  | 3 | 1.1798 | 4.11 |  | -83 |
|  | 4 | 1.2054 | 4.04 |  | -95 |
|  | 5 | 1.2593 | 3.99 |  | -75 |

|  |    |        |      |  |      |
|--|----|--------|------|--|------|
|  |    |        |      |  |      |
|  | 6  | 0.9996 | 3.97 |  | -84  |
|  | 7  | 0.9679 | 3.95 |  | -81  |
|  | 8  | 1.1085 | 3.94 |  | -97  |
|  | 9  | 1.3488 | 3.83 |  | -80  |
|  | 10 | 0.9253 | 3.82 |  | -92  |
|  | 11 | 1.2035 | 3.81 |  | -96  |
|  | 12 | 1.2792 | 3.8  |  | -79  |
|  | 13 | 1.1834 | 3.65 |  | -100 |
|  | 14 | 1.2633 | 3.6  |  | -76  |

|  |    |        |      |   |      |
|--|----|--------|------|---|------|
|  |    |        |      |   |      |
|  | 21 | 1.5667 | 3.1  | . | -101 |
|  | 22 | 1.4933 | 2.85 | . | -103 |
|  | 23 | 1.4829 | 2.73 | . | -78  |
|  | 24 | 1.6269 | 2.6  | . | -87  |
|  | 25 | 0.6664 | 2.02 | : | -98  |
|  | 26 | 0.6681 | 1.91 | : | -99  |
|  | 27 | 0.6209 | 1.72 | + | -91  |
|  | 28 | 0.6403 | 1.71 | : | -89  |
|  |    |        |      | : |      |

|  |    |        |      |   |      |
|--|----|--------|------|---|------|
|  |    |        |      |   |      |
|  | 29 | 0.6528 | 1.59 | : | -90  |
|  | 30 | 0.5983 | 1.53 | : | -88  |
|  | 31 | 0.4878 | 1.38 |   | -106 |
|  | 32 | 0.4688 | 1.32 |   | -107 |
|  | 33 | 0.4462 | 1.27 |   | -105 |
|  | 34 | 0.4408 | 1.26 |   | -104 |

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( 4.33 – 2.6 )

%29

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.( 2.02 – 1.26 )

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( 4.33 )

( 4.11 )

( 83 )

( 4.15 )

( 75 )

( 4.04 )

( 95 )



|          |          |          |           |
|----------|----------|----------|-----------|
|          | ( 84 )   | ( 3.99 ) |           |
| (3.95)   |          | ( 81)    | ( 3.97 )  |
|          | ( 3.94 ) |          | ( 97 )    |
|          | ( 92 )   | ( 3.83 ) | ( 80 )    |
|          |          | ( 96 )   | ( 3.82 )  |
| ( 3.8 )  |          | ( 79 )   | ( 3.81 )  |
|          | ( 3.65 ) |          | ( 100 )   |
| ( 82 )   |          | .( 3.6 ) | ( 76 )    |
| ( 85 )   |          | ( 3.57 ) |           |
|          | ( 102 )  | ( 3.55 ) |           |
|          |          | ( 77 )   | ( 3.5 )   |
| ( 3.23 ) |          | ( 94 )   | ( 3.46 )  |
|          | ( 3.19 ) |          | ( 93 )    |
| ( 103 )  | ( 3.1 )  |          | ( 101 )   |
|          | ( 78 )   | ( 2.85 ) |           |
|          | ( 87 )   | ( 2.73 ) |           |
|          |          | ( 98 )   | ( 2.6 )   |
|          |          | ( 99 )   | ( 2.02 )  |
| ( 1.72 ) |          | ( 91)    | ( 1.91 )  |
|          | ( 1.71 ) |          | ( 89 )    |
|          | ( 1.59 ) |          | ( 90 )    |
| ( 106 )  | ( 1.53 ) |          | ( 88 )    |
| ( 107 )  |          | ( 1.38 ) |           |
|          | ( 105 )  | ( 1.32 ) |           |
|          | ( 104 )  |          | ( 1.27 )  |
|          |          |          | .( 1.26 ) |

(5)

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(5-4)

|  |   |        |      |  |      |
|--|---|--------|------|--|------|
|  |   |        |      |  |      |
|  | 1 | 0.9329 | 4.28 |  | -116 |
|  | 2 | 0.9653 | 4.24 |  | -114 |
|  | 3 | 0.9101 | 4.2  |  | -119 |
|  | 3 | 0.9744 | 4.2  |  | -122 |
|  | 4 | 1.2115 | 4.13 |  | -108 |
|  | 5 | 0.8103 | 4.1  |  | -118 |

|  |    |        |      |  |      |
|--|----|--------|------|--|------|
|  |    |        |      |  |      |
|  | 6  | 0.9783 | 4.05 |  | -112 |
|  | 7  | 1.1714 | 4.04 |  | -109 |
|  | 8  | 0.9669 | 3.88 |  | -121 |
|  | 9  | 1.1924 | 3.82 |  | -124 |
|  | 10 | 0.9958 | 3.72 |  | -125 |
|  | 10 | 1.1728 | 3.72 |  | -113 |
|  | 11 | 1.1976 | 3.6  |  | -126 |

|  |    |        |      |   |      |
|--|----|--------|------|---|------|
|  |    |        |      |   |      |
|  | 12 | 1.3297 | 3.36 |   | -120 |
|  | 13 | 1.3339 | 3.28 |   | -127 |
|  | 14 | 1.3460 | 3.08 |   | -123 |
|  | 15 | 1.5117 | 2.76 |   | -117 |
|  | 16 | 1.5144 | 2.64 |   | -115 |
|  | 17 | 1.1145 | 2.52 |   | -110 |
|  | 18 | 1.0036 | 2.23 | / | -111 |
|  | 19 | 0.4878 | 1.38 | : | -128 |
|  | 20 | 0.4852 | 1.37 |   | -131 |

|           |                 |                  |           |
|-----------|-----------------|------------------|-----------|
|           |                 |                  | ( 5-4 )   |
|           | ( 4.28 – 2.23 ) |                  |           |
|           |                 | %17              |           |
| ( 116 )   |                 | .( 1.38 – 1.23 ) |           |
|           | ( 114 )         |                  | ( 4.28 )  |
|           | ( 122 )         | ( 119 )          | ( 4.24 )  |
| ( 4.13 )  |                 | ( 108 )          | ( 4.2 )   |
|           | ( 4.10 )        |                  | ( 118 )   |
| ( 109 )   |                 | ( 4.05 )         | ( 112 )   |
|           | ( 121 )         |                  | ( 4.04 )  |
| ( 3.82 )  |                 | ( 124 )          | ( 3.88 )  |
| ( 3.72 )  |                 | ( 113 )          | ( 125 )   |
|           | ( 3.6 )         |                  | ( 126 )   |
| ( 127 )   |                 | ( 3.36 )         | ( 120 )   |
|           | ( 123 )         |                  | ( 3.28 )  |
|           | ( 117 )         |                  | .( 3.08 ) |
|           | ( 115 )         |                  | ( 2.76 )  |
|           |                 | ( 110 )          | ( 2.64 )  |
| .( 2.23 ) |                 | ( 111 )          | ( 2.52 )  |
|           | ( 1.38 )        |                  | ( 128 )   |
| ( 129 )   | ( 1.37 )        |                  | ( 131 )   |
| ( 130 )   |                 | ( 1.31 )         |           |
|           |                 | .( 1.23 )        |           |

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|  |               |  |           |
|--|---------------|--|-----------|
|  |               |  |           |
|  | <b>3.4589</b> |  | <b>-1</b> |
|  | <b>3.2141</b> |  | <b>-2</b> |
|  | <b>3.1369</b> |  | <b>-3</b> |
|  | <b>3.1131</b> |  | <b>-4</b> |
|  | <b>3.0141</b> |  | <b>-5</b> |

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%86 - %80 -

%77 - %55 -

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|           | .   | :     |   |
|           | +   |       | - |
| %43 - %37 |     | ,     |   |
| %51       |     |       |   |
|           |     | %54 - |   |
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|           |     |       | - |
|           | .   |       |   |
|           | %52 |       | - |
| %41       | .   |       |   |
|           | .   |       |   |

|           |           |     |    |
|-----------|-----------|-----|----|
|           |           |     | -  |
| %56 - %55 | %27 - %21 |     |    |
|           | %23 - %18 |     |    |
| .         |           |     |    |
|           |           | %58 | -  |
|           | %34       |     |    |
|           |           | .   |    |
|           |           | %62 | -  |
|           |           |     |    |
|           |           | %68 | -  |
|           | %32       |     |    |
|           |           |     | .5 |
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|           |           | %57 | -  |
|           | 2         |     |    |
| 2         | %77       | ,   |    |

%29 , -  
 %28 %31  
 %12  
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( 7-4 )

|  | t *           |               |             |           |
|--|---------------|---------------|-------------|-----------|
|  | <b>10.215</b> | <b>0.9692</b> | <b>3.99</b> | <b>-4</b> |
|  | <b>8.433</b>  | <b>0.8538</b> | <b>3.72</b> | <b>-2</b> |
|  | <b>7.102</b>  | <b>0.9434</b> | <b>3.67</b> | <b>-1</b> |
|  | <b>7.021</b>  | <b>0.7834</b> | <b>3.55</b> | <b>-3</b> |
|  | <b>3.587</b>  | <b>1.0314</b> | <b>3.37</b> | <b>-6</b> |
|  | <b>3.188</b>  | <b>1.0038</b> | <b>3.33</b> | <b>-5</b> |
|  | <b>3.324</b>  | <b>0.9627</b> | <b>3.32</b> | <b>-7</b> |

.%95

t- \*

( 3.99 )

( 0.9692 )

( 0.8583 ) ( 3.72 )  
 ( 0.9434 ) ( 3.67 )  
 ( 0.7834 ) ( 3.55 )  
 ,  
 3.56  
 ( 3 )  
 ( 0.9354 )  
 ( 4 ) ( 3 )  
 .  
 %41 - %19  
 %48 - %33  
 %34 - %28  
 : . %43 - %35  
 ( 8-4 )

|              |               |  | <b>Sig.( 2-tailed )</b> | <b>t</b>    | <b>t</b>     |
|--------------|---------------|--|-------------------------|-------------|--------------|
| <b>0.894</b> | <b>3.5629</b> |  | <b>0.020</b>            | <b>1.97</b> | <b>6.294</b> |

t 99 %95

.1.97

t ( One sample t-test )

1.97

6.294

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( 9-4 )

|  | t *          |                |             |            |
|--|--------------|----------------|-------------|------------|
|  | <b>6.653</b> | <b>0.82878</b> | <b>3.8</b>  | <b>-9</b>  |
|  | <b>8.807</b> | <b>0.81749</b> | <b>3.72</b> | <b>-10</b> |
|  | <b>3.339</b> | <b>1.04809</b> | <b>3.35</b> | <b>-8</b>  |
|  | <b>1.146</b> | <b>1.04717</b> | <b>3.12</b> | <b>-11</b> |

. %95

t- \*

( 3.80 )

( 0.8288 )

( 0.8175 )

( 3.72 )

( 1.048 )

( 3.35 )

3.5

( 0.9354 )

%36 - %31

%43 - %41

%39 - %29

%34 - %30

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( 10-4 )

|         |        |  | Sig.( 2-tailed ) | t    | t     |
|---------|--------|--|------------------|------|-------|
| 0.89858 | 3.4975 |  | 0.000            | 1.97 | 5.537 |

t

99

%95

.1.97

t

5.537

( 11-4 )

|  | T *   |         |       |     |
|--|-------|---------|-------|-----|
|  | 9.613 | 1.02981 | 3.99  | -16 |
|  | 9.975 | 0.87219 | 3.87  | -21 |
|  | 8.343 | 1.01876 | 3.85  | -14 |
|  | 8.298 | 1.01225 | 3.84  | -20 |
|  | 7.756 | 0.94125 | 3.73  | -22 |
|  | 7.916 | 0.82112 | 3.65  | -13 |
|  | 5.494 | 1.07398 | 3.594 | -18 |
|  | 6.639 | 0.88871 | 3.59  | -15 |
|  | 6.401 | 0.89052 | 3.571 | -17 |
|  | 5.773 | 0.98734 | 3.57  | -12 |
|  | 2.769 | 1.04731 | 3.29  | -19 |

.%95

t-

\*

( 1.02981 ) ( 3.99 )  
 ( 1.04731 ) ( 3.29 )  
 ( 3.69 )  
 ( 0.9621 )

%39 - %15  
 %34 - %14 %39 - %22  
 %44 - %26 %38 - %31  
 :

( 12-4 )

|                |               |  | <b>Sig.( 2-tailed )</b> | <b>t</b>    | <b>t</b>     |
|----------------|---------------|--|-------------------------|-------------|--------------|
| <b>0.91945</b> | <b>3.6855</b> |  | <b>0.010</b>            | <b>1.97</b> | <b>7.455</b> |

t 99 %95

.1.97

t  
 1.97 7.455

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( 13-4 )

|  | $t^*$         |                |             |            |
|--|---------------|----------------|-------------|------------|
|  | <b>14.214</b> | <b>0.8372</b>  | <b>4.19</b> | <b>-23</b> |
|  | <b>12.087</b> | <b>0.76118</b> | <b>3.92</b> | <b>-29</b> |
|  | <b>9.798</b>  | <b>0.8165</b>  | <b>3.8</b>  | <b>-24</b> |
|  | <b>8.872</b>  | <b>0.84537</b> | <b>3.75</b> | <b>-30</b> |
|  | <b>7.351</b>  | <b>0.87062</b> | <b>3.64</b> | <b>-25</b> |
|  | <b>6.169</b>  | <b>0.92392</b> | <b>3.57</b> | <b>-32</b> |
|  | <b>5.766</b>  | <b>0.93657</b> | <b>3.54</b> | <b>-31</b> |
|  | <b>5.441</b>  | <b>0.93738</b> | <b>3.51</b> | <b>-26</b> |
|  | <b>4.736</b>  | <b>0.86568</b> | <b>3.41</b> | <b>-27</b> |
|  | <b>2.795</b>  | <b>1.03763</b> | <b>3.29</b> | <b>-28</b> |

.95%

t- \*

( 4.19 )

, ( 0.8372 )

( 0.76118 )

( 3.92 )

( 3.29 )

( 1.3763 )

( 3.662 )

( 0.8832 )

%46

%36 - %27

%39 - %27

%45 - %34

%42 - %25

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( 14-4 )

|              |              |  | <b>Sig.( 2-tailed )</b> | <b>t</b>    | <b>T</b>     |
|--------------|--------------|--|-------------------------|-------------|--------------|
| <b>0.837</b> | <b>3.662</b> |  | <b>0.010</b>            | <b>1.97</b> | <b>7.909</b> |

t                      99                      %95

.1.97

7.909

t

1.97

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( 15-4 )

|  | <b>t *</b>    |                |             |            |
|--|---------------|----------------|-------------|------------|
|  | <b>13.314</b> | <b>0.84871</b> | <b>4.13</b> | <b>-33</b> |
|  | <b>12.529</b> | <b>0.82211</b> | <b>4.03</b> | <b>-39</b> |
|  | <b>12.278</b> | <b>0.8226</b>  | <b>4.01</b> | <b>-35</b> |
|  | <b>10.519</b> | <b>0.90314</b> | <b>3.95</b> | <b>-34</b> |
|  | <b>8.982</b>  | <b>0.87957</b> | <b>3.79</b> | <b>-37</b> |
|  | <b>8.014</b>  | <b>0.861</b>   | <b>3.69</b> | <b>-38</b> |
|  | <b>6.129</b>  | <b>0.881</b>   | <b>3.54</b> | <b>-36</b> |

.%95

t-

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( 4.13 )  
 ( 4.03 ) ( 0.8487 )  
 ( 0.8226 ) ( 4.01 ) ( 0.82211 )  
 ( 3.95 )  
 ( 0.90314 )  
 ( 3.877 )  
 ( 0.8597 ) ( 3 )  
 %43 - %35  
 %48 - %27  
 %32 - %18  
 - %33 %38 - %35  
 : . %39  
 ( 16-4 )

|         |        |  | Sig.( 2-tailed ) | t    | T      |
|---------|--------|--|------------------|------|--------|
| 0.81194 | 3.8771 |  | 0.009            | 1.97 | 10.803 |

t

99

%95

.1.97

10.803

t

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( 17-4 )

|  |               |  |           |
|--|---------------|--|-----------|
|  |               |  |           |
|  | <b>3.8771</b> |  | <b>-1</b> |
|  | <b>3.6855</b> |  | <b>-2</b> |
|  | <b>3.662</b>  |  | <b>-3</b> |
|  | <b>3.5629</b> |  | <b>-4</b> |
|  | <b>3.4975</b> |  | <b>-5</b> |

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## مراجع الدراسة

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**BIS International Convergence of Capital** ( 2004 )

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 .2004 ( 26-23 )  
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Blanchfield, Oser.J and Willaim.C ( 1975 ) “**The Evolution of Economic Thought**”, Florida: Harcourt Brace Jovanovich., Inc. U.S.A.

Bluhm, Christain ( 2002 ) “ **An Introduction to Credit Risk Modeling**”, CRC Press., Inc, U.S.A. 1<sup>st</sup> ed.

Brigham, Eugene.F and Ehrhardt, Micheal.C ( 2005 ) “**Financial Management**”, Florida: Harcourt Brace Jovanovich., Inc, U.S.A, 11<sup>th</sup> ed

Cochran, John ( 2004 ) “**Money, Banking and The Economy**”, New York: The Macmillan Co., Inc. U.S.A, 8<sup>th</sup> ed.

Cole, Leonard ( 1998 ) “ **Management Accounting in Banks** ”, Rolling Meadows: Bank Administration Institute, U.S.A

Fabozzi, F and Modigliani, F ( 1994 ) “**Capital Market Institutions and Instruments**”, Prentice Hall, Pearson Education International, U.S.A., 2<sup>nd</sup> ed.

Hampthorn, John ( 2007 ) “**Financial Decision Making, Concepts, Problems and Cases**”, New York: Prentice Hall International Inc, U.S.A.

Haskins, Joe and Sells, Iely ( 1974 ) “**Bank Costs for Planning and Pricing Control**”, Illinois: Bank Administration Institute, U.S.A

John, G, Blocker. W and Weltney, Keith ( 2005 ) “**Cost Accounting**”, New York: The Macmillan Co.,Inc, U.S.A. 3<sup>rd</sup> ed.

Koch, Tmothy and Macdonald.S. Scott ( 2003 ) “**Bank Management**”, Thomson Publishing, Inc. U.S.A. 5<sup>th</sup> ed.

Matten, Christopher ( 1996 ) “**Managing Bank Capital**”, New York: John Wiley and Sons Ltd., Inc, U.S.A.

Mayer, Thomas, Dnesenberry, J.S and Aliber, K.Z ( 2004 ) “ **Money, Banking and Economy** ”, New York: Norton Publishing Co. U.S.A.

Mays, Elizabeth ( 2003 ) “ **Credit Scoring for Risk Managers** ”, South Westren Educational Publishing, U.S.A. 3<sup>rd</sup> ed.

Miller, Roger and Pulsinelli, Robert ( 1989 ) “ **Modern Money and Banking** ”, New York: Mc Graw-Hill., U.S.A. 2<sup>nd</sup> ed.

Reed, Edward.W and Gill, Edward.K ( 1989 ) “ **Commercial Banking** ”, New Jersey, Prentice Hall, Inc. U.S.A. 4<sup>th</sup> ed.

Reilly, Frank and Brown, Keith.C ( 2006 ) “ **Investment Analysis and Portfolio Management** ”, Thomson Publishing, Inc. U.S.A. 8<sup>th</sup> ed.

Rose, Peter.S and Hudgins, Sylvia ( 2008 ) “ **Bank Management and Financial services** ”, New York: Mc Graw-Hill., U.S.A. 7<sup>th</sup> ed.

Saunders, Anthony and Cornett, Marcia Millon ( 2006 ) “ **Financial Institutions Management: A Risk Management Approach** ”, New York: Mc Graw-Hill., U.S.A. 5<sup>th</sup> ed.

Scott, J.A ( 1998 ) “ **Budgeting Control and Standard Costs** ”, London: Issac Pitmen and Sons, Inc.U.K. 5<sup>th</sup> ed.

Taylor, Allia Ultrich ( 2002 ) “ **Management Accounting: The Financial Planning Implications of Bank Loan Pricing** ”, New Jersey: Mc Graw-Hill., U.S.A. 6<sup>th</sup> ed.

Walker, John.R ( 1975 ) “ **Bank Costs for Decision Making: Costing Procedures for Pricing Bank Services** ”, Boston: Bankers Publishing, Inc. USA.

Wayne, Keller ( 2006 ) “ **Management Accounting Control** ”, New York: Mc Graw-Hill., U.S.A. 6<sup>th</sup> ed.

Wilson, T ( 1997 ) “ **Credit Risk Modeling: A New Approach** ”, New York: Mackinsey Inc, Mimeo. U.SA.

: .

Cyree, Kendall Brain ( 1996 ) “ Determinations and Effects of Growth Strategies in Banking ”, **Unpublished P.H.D Dissertation**, University of Tennessy, Tennessy.U.S.A.

Komorad, Karel ( 2003 ) “ On Credit Scoring Estimation ”, **Unpublished Master’s Thesis From Institute for Statistics and Econometrics**, Humboldt University, Berlin. Germany.

Roland, Karin Grey ( 1995 ) “ Profit Persistence in Large U.S Bank Holding Companies ”, **Unpublished P.H.D Dissertation**, University of Florida, Miami. U.S.A.

: .

Allen, Berger.A and Hannan, H.Timothy ( 1989 ) “The Price Concentration Relationship in Banking ”, **Review of Economic and Credit Journal**, Vol.24, pp. 291-299.

Bexely, James and Joe, James ( 1999 ) “ Risk Management in Pricing a Financial Product ”, **Journal of Banking and Finance**, Vol.19, pp. 159-192.

Browne, Andrew ( 2001 ) “ The Banks and Personal Credit ”, **World Banking Magazine**, Vol.9, No.1, January, pp. 78-82.

Cabral.L, D.Salant and G.Woroth ( 1994 ) “ Monopoly Pricing With Network Externalities ”, **American Economic Review**, Vol.77, pp. 647-666.

Diette, Matthew.D ( 2007 ) “ How Lenders Set Interest Rates on Loans?”, Banking Supervision Department, **Federal Reserve Bank of Minneapolis Magazine**, pp.5-14.

Dine, Is ( 2000 ) “ Bank Reputation, Bank Commitment and Effects of Competition in Credit Markets ”, **The Review of Financial Studies Journal**, Vol.13, pp. 781-812.

Edwards, Sebastian and Kahn, Mohsin.S ( 1985 ) “ Interest Rate Determinations in Developing Countries ”, **IMF Staff Papers**, Vol.32, No.3, September, pp. 397-421.

Guiltinan, Joseph ( 2005 ) “ Pricing Bank Services: A Planning Approach ”, **American Bankers Association Magazine**, pp. 99-118.

Govidarjan, Micheal and Anthony John ( 1988 ) “ How Firms use Cost Data in Pricing Decisions ”, **Journal of Money and Banking**, Vol.8, pp.59-66.

Hannagan, Thomas.A ( 2002 ) “ 8000 Institutions Can Be Wrong: Loan Pricing in The 21<sup>st</sup> Century ”, **RMA Journal**, pp.60-66.

Hutchison, E.David ( 1995 ) “ Retail Bank Loan Pricing: An Intertemporal Asset Pricing Approach ”, **Journal of Money, Credit and Banking**, Vol.27, pp. 201-212.

James, Christopher ( 1982 ) “ An Analysis of Bank loan Rate Indexation ”, **Journal of Finance**, Vol.22, No.3, pp. 809-825.

Jarrow, Robert and Deventer, Donald.R.Van ( 1998 ) “ The Arbitrage-Fee Valuation and hedging of Demand Deposits and Credit Card Loans ”, **Journal of Banking and Finance**, Vol.22, No.3, pp. 249-262.

Liebich, Kim ( 1995 ) “ How to Value A Loan ”, **ABA Banking Journal**, August, pp. 44-56.

Mcdonald, Jay and Mckinley, John ( 2007 ) “ Corporate Banking: A Practical Approach to Lending ”, **ABA Banking Journal**, U.S.A, pp. 248-266.

Mester, L and Saunders.A ( 1995 ) “ Why Does The Prime Rate Change ? ”, **Journal of Banking and Finance**, Vol.19, pp.743-764.

Parasad, Baba and Hurker.K.Patrick ( 2005 ) “ Pricing Online Banking Services Amid Network Externalities ”, **Journal of Money, Credit and Banking**, Vol.15, pp.35-58.

Paresis, Jell ( 2003 ) “ Building An ROI for Credit Automation: The Four Steps to Justifying The Purchase of An Automated Credit Pricing and Collection systems ”, **Business Ccredit Journal**, January, pp. 9-12.

Quintana, Richard ( 2004 ) “ Risk Based Pricing-Commaercial Lending and Trade Credit ”, **Business Ccredit Journal**, p 32-33.

Sparrish, Selina ( 2006 ) “ Loan Pricing and Profitability Solutions ”, Financial Services Industry, **Kentucky Banker Magazine**, October.

: .

Berlin, M and L.J Mester ( 2007 ) “**Why is The Banking Sector Shrinking: Core Deposit and Relationship Lending**”, Working Paper No.96-18/R, Federal Reserve Bank of Philadelphia, U.S.A.

Caire, Dean and Kossman, Robert ( 2003 ) “ **Credit Soring: Is It Right for Your Bank ?** ”, Research Prepared for Bannock Consulting, February, London, U.K.

Edelberg, Wendy ( 2003 ) “**Risk-Based Pricing of Interest Rates in Consumer loan Markets**”, Research Prepared for University of Chicago, Department of Economics, July, U.S.A.

Marto, Michel ( 1988 ) “**Interest Rate Deregulation: Remarks for Possibilities in Jordan** ”, Interest Rate Liberalization Seminar, May 4-5, Amman, Jordan.

Milbowrne, R. and Cumberworth, M ( 1991 ) “**Australian Banking Performance in Era of Deregulation**”, Australian Economic papers, December, Australia.



Repullo, Rafael and Suarez, Javier ( 2004 ) “**Loan Pricing Under Basel Capital Requirements**”, Reseach Prepared for Meeting of Econometrics Society, July, Madrid, Spain.

Scheiner, Mark ( 2002 ) “**Benefits and Pitfalls of Statistical Credit Scoring For Microfinance**”, Research Prepared for Center for Social Development, September, Universirty of St. Louis, Washington, U.S.A.

Watanabe, Wako ( 2005 ) “**How Are loans By their Main banks Priced: Bank effects, Information and Non-Price Term of Contracts**”, Discussion Paper Series, December, Tohokn University, Kawanchi, Japan.

: هـ

Basel Committee on Bank Supervision. ( 2006, June ) “ **International Convergence of Capital Measurement and Standard: A Revised Frame Work** ”, [http:// www.Questia.com](http://www.Questia.com).

Britting, Bobbie. ( 2006, August ) “ **Profit-Based Pricing: Time to Stop Leaving Money on The Table** ”, [http:// www.Towergroup.com](http://www.Towergroup.com).

Calomiris, Cherles.W and Pornrojnangkool, Thanaunt. ( 2005 ) “**Relation Banking and The Pricing of Financial Services**”, [http:// www.Ebscohost.com](http://www.Ebscohost.com).

Davidson, Steve. ( 2001, October ) “ **Setting Financial Benchmark as An Investment Evaluation Tool** ” Community Banker Magazine, [http:// www.bnet.com/Findarticles](http://www.bnet.com/Findarticles).

Dermine, J. ( 1996 ) “ **Loan Valuation** ”, A Modern Finance Perspective, [http:// www.Questia.com](http://www.Questia.com).

**International Convergence of Capital Measurement and Standard ( BIS )**, [http:// www.Bis.com](http://www.Bis.com).

Owens, John. ( 2005 ) “ **The Price is Right: Beat Competition by Pricing Loans for Customers and Shareholders**”, [http:// www.rsmmcgladery.com/Banknotes](http://www.rsmmcgladery.com/Banknotes).



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|   | . | <input type="checkbox"/> | . | <input type="checkbox"/> |     |
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|   |   |                          |   |                          | -72 |
|   | . | <input type="checkbox"/> | . | <input type="checkbox"/> |     |
|   |   |                          |   |                          | -73 |
|   | . | <input type="checkbox"/> | . | <input type="checkbox"/> |     |

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| ( 1 ) | ( 2 ) | ( 3 ) | ( 4 ) | ( 5 ) |   |    |
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|       |       |       |       |       |   | -4 |
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| ( 1 ) | ( 2 ) | ( 3 ) | ( 4 ) | ( 5 ) |  |     |
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|       |       |       |       |       |  | -10 |
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|       |       |       |       |       |  | -13 |
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|       |       |       |       |       |  | -15 |

| ( 1 ) | ( 2 ) | ( 3 ) | ( 4 ) | ( 5 ) |  |     |
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|       |       |       |       |       |  | -16 |
|       |       |       |       |       |  | -17 |
|       |       |       |       |       |  | -18 |
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| ( 1 ) | ( 2 ) | ( 3 ) | ( 4 ) | ( 5 ) |  |     |
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|       |       |       |       |       |  | -24 |
|       |       |       |       |       |  | -25 |
|       |       |       |       |       |  | -26 |
|       |       |       |       |       |  | -27 |
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| ( 1 ) | ( 2 ) | ( 3 ) | ( 4 ) | ( 5 ) |  |     |
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|       |       |       |       |       |  | -29 |
|       |       |       |       |       |  | -30 |
|       |       |       |       |       |  | -31 |
|       |       |       |       |       |  | -32 |
|       |       |       |       |       |  | -33 |
|       |       |       |       |       |  | -34 |

| ( 1 ) | ( 2 ) | ( 3 ) | ( 4 ) | ( 5 ) |  |     |
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|       |       |       |       |       |  | -35 |
|       |       |       |       |       |  | -36 |
|       |       |       |       |       |  | -37 |
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**Frequencies**

| <b>Statistics</b> |       |          |     |         |   |
|-------------------|-------|----------|-----|---------|---|
| AGE               | EXPER | ED LEVEL | JOB |         |   |
| 100               | 100   | 100      | 100 | Valid   | N |
| 0                 | 0     | 0        | 0   | Missing |   |

**Frequency Table**

| <b>JOB</b>         |               |         |           |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
| 27.0               | 27.0          | 27.0    | 27        | 1.00  | Valid |
| 65.0               | 38.0          | 38.0    | 38        | 2.00  |       |
| 100.0              | 35.0          | 35.0    | 35        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |

| <b>ED LEVEL</b>    |               |         |           |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
| 16.0               | 16.0          | 16.0    | 16        | 1.00  | Valid |
| 61.0               | 45.0          | 45.0    | 45        | 2.00  |       |
| 100.0              | 39.0          | 39.0    | 39        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |

| <b>EXPER</b>       |               |         |           |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
| 34.0               | 34.0          | 34.0    | 34        | 1.00  | Valid |
| 61.0               | 27.0          | 27.0    | 27        | 2.00  |       |
| 82.0               | 21.0          | 21.0    | 21        | 3.00  |       |
| 100.0              | 18.0          | 18.0    | 18        | 4.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |



**AGE**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 15.0               | 15.0          | 15.0    | 15        | 1.00  | Valid |
| 55.0               | 40.0          | 40.0    | 40        | 2.00  |       |
| 81.0               | 26.0          | 26.0    | 26        | 3.00  |       |
| 100.0              | 19.0          | 19.0    | 19        | 4.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |

**Frequencies****Statistics**

| Q73 | Q72 | Q71 | Q70 | Q69 | Q68 | Q67 | Q66 | Q65 |         |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|---------|---|
| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | Valid   | N |
| 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | 0   | Missing |   |

**Frequency Table****Q65**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 53.0               | 53.0          | 53.0    | 53        | 1.00  | Valid |
| 85.0               | 32.0          | 32.0    | 32        | 2.00  |       |
| 100.0              | 15.0          | 15.0    | 15        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.62          |         |           |       |       |
| Std. Deviation     | .7355         |         |           |       |       |

**Q66**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 51.0               | 51.0          | 51.0    | 51        | 1.00  | Valid |
| 94.0               | 43.0          | 43.0    | 43        | 2.00  |       |
| 100.0              | 6.0           | 6.0     | 6         | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.550         |         |           |       |       |
| Std. Deviation     | .6092         |         |           |       |       |

**Q67**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 27.0               | 27.0          | 27.0    | 27        | 1.00  | Valid |
| 82.0               | 55.0          | 55.0    | 55        | 2.00  |       |
| 100.0              | 18.0          | 18.0    | 18        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.910         |         |           |       |       |
| Std. Deviation     | .6681         |         |           |       |       |

**Q68**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 56.0               | 56.0          | 56.0    | 56        | 1.00  | Valid |
| 100.0              | 44.0          | 44.0    | 44        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.440         |         |           |       |       |
| Std. Deviation     | .4988         |         |           |       |       |

**Q69**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 19.0               | 19.0          | 19.0    | 19        | 1.00  | Valid |
| 100.0              | 81.0          | 81.0    | 81        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.810         |         |           |       |       |
| Std. Deviation     | .3942         |         |           |       |       |

**Q70**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 68.0               | 68.0          | 68.0    | 68        | 1.00  | Valid |
| 100.0              | 32.0          | 32.0    | 32        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.320         |         |           |       |       |
| Std. Deviation     | .46883        |         |           |       |       |

**Q71**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 60.0               | 60.0          | 60.0    | 60        | 1.00  | Valid |
| 100.0              | 40.0          | 40.0    | 40        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.400         |         |           |       |       |
| Std. Deviation     | .4923         |         |           |       |       |

**Q72**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 40.0               | 40.0          | 40.0    | 40        | 1.00  | Valid |
| 100.0              | 60.0          | 60.0    | 60        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.600         |         |           |       |       |
| Std. Deviation     | .4923         |         |           |       |       |

**Q73**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 75.0               | 75.0          | 75.0    | 75        | 1.00  | Valid |
| 100.0              | 25.0          | 25.0    | 25        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.250         |         |           |       |       |
| Std. Deviation     | .4351         |         |           |       |       |

**Frequency Table****Q16**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 14.0               | 14.0          | 14.0    | 14        | 1.00  | Valid |
| 100.0              | 86.0          | 86.0    | 86        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.860         |         |           |       |       |
| Std. Deviation     | .3487         |         |           |       |       |

**Q17**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 55.0               | 55.0          | 55.0    | 55        | 1.00  | Valid |
| 100.0              | 45.0          | 45.0    | 45        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.450         |         |           |       |       |
| Std. Deviation     | .5000         |         |           |       |       |

**Q18**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 61.0               | 61.0          | 61.0    | 61        | 1.00  | Valid |
| 100.0              | 39.0          | 39.0    | 39        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.390         |         |           |       |       |
| Std. Deviation     | .4902         |         |           |       |       |

**Q32**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 66.0               | 66.0          | 66.0    | 66        | 1.00  | Valid |
| 100.0              | 34.0          | 34.0    | 34        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.340         |         |           |       |       |
| Std. Deviation     | .4761         |         |           |       |       |

**Q33**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 63.0               | 63.0          | 63.0    | 63        | 1.00  | Valid |
| 100.0              | 37.0          | 37.0    | 37        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.370         |         |           |       |       |
| Std. Deviation     | .4852         |         |           |       |       |

**Q34**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 67.0               | 67.0          | 67.0    | 67        | 1.00  | Valid |
| 100.0              | 33.0          | 33.0    | 33        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.330         |         |           |       |       |
| Std. Deviation     | .4725         |         |           |       |       |

**Q88**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 52.0               | 52.0          | 52.0    | 52        | 1.00  | Valid |
| 95.0               | 43.0          | 43.0    | 43        | 2.00  |       |
| 100.0              | 5.0           | 5.0     | 5         | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.530         |         |           |       |       |
| Std. Deviation     | .5938         |         |           |       |       |

**Q89**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 39.0               | 39.0          | 39.0    | 39        | 1.00  | Valid |
| 90.0               | 51.0          | 51.0    | 51        | 2.00  |       |
| 100.0              | 10.0          | 10.0    | 10        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.710         |         |           |       |       |
| Std. Deviation     | .6403         |         |           |       |       |

**Q90**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 50.0               | 50.0          | 50.0    | 50        | 1.00  | Valid |
| 91.0               | 41.0          | 41.0    | 41        | 2.00  |       |
| 100.0              | 9.0           | 9.0     | 9         | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.590         |         |           |       |       |
| Std. Deviation     | .6528         |         |           |       |       |

**Q91**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 37.0               | 37.0          | 37.0    | 37        | 1.00  | Valid |
| 91.0               | 54.0          | 54.0    | 54        | 2.00  |       |
| 100.0              | 9.0           | 9.0     | 9         | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.720         |         |           |       |       |
| Std. Deviation     | .6208         |         |           |       |       |

**Q98**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 21.0               | 21.0          | 21.0    | 21        | 1.00  | Valid |
| 77.0               | 56.0          | 56.0    | 56        | 2.00  |       |
| 100.0              | 23.0          | 23.0    | 23        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 2.020         |         |           |       |       |
| Std. Deviation     | .6663         |         |           |       |       |

**Q99**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 27.0               | 27.0          | 27.0    | 27        | 1.00  | Valid |
| 82.0               | 55.0          | 55.0    | 55        | 2.00  |       |
| 100.0              | 18.0          | 18.0    | 18        | 3.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.910         |         |           |       |       |
| Std. Deviation     | .6681         |         |           |       |       |

**Q104**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 74.0               | 74.0          | 74.0    | 74        | 1.00  | Valid |
| 100.0              | 26.0          | 26.0    | 26        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.260         |         |           |       |       |
| Std. Deviation     | .4408         |         |           |       |       |

**Q105**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 73.0               | 73.0          | 73.0    | 73        | 1.00  | Valid |
| 100.0              | 27.0          | 27.0    | 27        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.270         |         |           |       |       |
| Std. Deviation     | .4462         |         |           |       |       |

**Q106**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 62.0               | 62.0          | 62.0    | 62        | 1.00  | Valid |
| 100.0              | 38.0          | 38.0    | 38        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.380         |         |           |       |       |
| Std. Deviation     | .4878         |         |           |       |       |

**Q107**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 68.0               | 68.0          | 68.0    | 68        | 1.00  | Valid |
| 100.0              | 32.0          | 32.0    | 32        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.320         |         |           |       |       |
| Std. Deviation     | .4688         |         |           |       |       |

**Q110**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 23.0               | 23.0          | 23.0    | 23        | 1.00  | Valid |
| 51.0               | 28.0          | 28.0    | 28        | 2.00  |       |
| 74.0               | 23.0          | 23.0    | 23        | 3.00  |       |
| 100.0              | 26.0          | 26.0    | 26        | 4.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 2.520         |         |           |       |       |
| Std. Deviation     | 1.1144        |         |           |       |       |

**Q111**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 29.0               | 29.0          | 29.0    | 29        | 1.00  | Valid |
| 60.0               | 31.0          | 31.0    | 31        | 2.00  |       |
| 88.0               | 28.0          | 28.0    | 28        | 3.00  |       |
| 100.0              | 12.0          | 12.0    | 12        | 4.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 2.230         |         |           |       |       |
| Std. Deviation     | 1.0035        |         |           |       |       |

**Q128**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 62.0               | 62.0          | 62.0    | 62        | 1.00  | Valid |
| 100.0              | 38.0          | 38.0    | 38        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.380         |         |           |       |       |
| Std. Deviation     | .4878         |         |           |       |       |

**Q129**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 69.0               | 69.0          | 69.0    | 69        | 1.00  | Valid |
| 100.0              | 31.0          | 31.0    | 31        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.310         |         |           |       |       |
| Std. Deviation     | .4648         |         |           |       |       |

**Q130**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 77.0               | 77.0          | 77.0    | 77        | 1.00  | Valid |
| 100.0              | 23.0          | 23.0    | 23        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.230         |         |           |       |       |
| Std. Deviation     | .4229         |         |           |       |       |



**Q131**

| Cumulative Percent | Valid Percent | Percent | Frequency |       |       |
|--------------------|---------------|---------|-----------|-------|-------|
| 63.0               | 63.0          | 63.0    | 63        | 1.00  | Valid |
| 100.0              | 37.0          | 37.0    | 37        | 2.00  |       |
|                    | 100.0         | 100.0   | 100       | Total |       |
| Mean               | 1.370         |         |           |       |       |
| Std. Deviation     | .4852         |         |           |       |       |

**Descriptives****Descriptive Statistics**

|     | N   | Minimum | Maximum | Mean   | Std. Deviation |
|-----|-----|---------|---------|--------|----------------|
| Q1  | 100 | 1.00    | 5.00    | 4.0700 | .94554         |
| Q2  | 100 | 1.00    | 5.00    | 3.2900 | 1.21684        |
| Q3  | 100 | 2.00    | 5.00    | 3.9400 | .98288         |
| Q4  | 100 | 2.00    | 5.00    | 4.0800 | 1.06059        |
| Q5  | 100 | 2.00    | 5.00    | 3.9600 | .90921         |
| Q6  | 100 | 2.00    | 5.00    | 4.0700 | .83188         |
| Q7  | 100 | 1.00    | 5.00    | 3.6200 | 1.23730        |
| Q8  | 100 | 2.00    | 5.00    | 3.7700 | .95193         |
| Q9  | 100 | 2.00    | 5.00    | 4.1500 | 1.15798        |
| Q10 | 100 | 2.00    | 5.00    | 4.1000 | .87039         |
| Q11 | 100 | 1.00    | 5.00    | 4.1100 | 1.23824        |
| Q12 | 100 | 1.00    | 5.00    | 3.2800 | 1.35647        |
| Q13 | 100 | 2.00    | 5.00    | 3.6400 | 1.09655        |
| Q14 | 100 | 1.00    | 5.00    | 3.4500 | 1.26631        |
| Q15 | 100 | 2.00    | 5.00    | 4.0300 | .97913         |
| Q19 | 100 | 1.00    | 5.00    | 3.4500 | 1.26631        |
| Q20 | 100 | 1.00    | 5.00    | 3.0600 | 1.30902        |
| Q21 | 100 | 1.00    | 5.00    | 3.2300 | 1.31698        |
| Q22 | 100 | 1.00    | 5.00    | 3.2000 | 1.68775        |
| Q23 | 100 | 1.00    | 5.00    | 3.5000 | 1.28315        |
| Q24 | 100 | 1.00    | 5.00    | 2.4500 | 1.46594        |
| Q25 | 100 | 2.00    | 5.00    | 3.9400 | .95155         |
| Q26 | 100 | 1.00    | 5.00    | 3.5100 | 1.29876        |
| Q27 | 100 | 2.00    | 5.00    | 4.2500 | .99874         |
| Q28 | 100 | 1.00    | 5.00    | 3.8800 | 1.05677        |
| Q29 | 100 | 1.00    | 5.00    | 3.6200 | 1.14398        |

|     |     |      |      |        |         |
|-----|-----|------|------|--------|---------|
| Q30 | 100 | 2.00 | 5.00 | 3.8300 | 1.01559 |
| Q31 | 100 | 1.00 | 5.00 | 3.8500 | 1.13150 |
| Q35 | 100 | 1.00 | 5.00 | 4.2400 | 1.01623 |
| Q36 | 100 | 1.00 | 5.00 | 4.1400 | .92135  |
| Q37 | 100 | 1.00 | 5.00 | 3.8600 | 1.12833 |
| Q38 | 100 | 1.00 | 5.00 | 4.1900 | 1.23660 |
| Q39 | 100 | 1.00 | 5.00 | 3.7500 | 1.19236 |
| Q40 | 100 | 1.00 | 5.00 | 2.8900 | 1.38458 |
| Q41 | 100 | 2.00 | 5.00 | 3.9100 | .94383  |
| Q42 | 100 | 1.00 | 5.00 | 2.7000 | 1.26730 |
| Q43 | 100 | 1.00 | 5.00 | 3.0100 | 1.43896 |
| Q44 | 100 | 2.00 | 5.00 | 4.4700 | .85818  |
| Q45 | 100 | 1.00 | 5.00 | 3.6700 | 1.17254 |
| Q46 | 100 | 1.00 | 5.00 | 3.2800 | 1.44306 |
| Q47 | 100 | 2.00 | 5.00 | 4.0100 | 1.01995 |
| Q48 | 100 | 1.00 | 5.00 | 2.5000 | 1.38170 |
| Q49 | 100 | 2.00 | 5.00 | 3.7900 | .96708  |
| Q50 | 100 | 1.00 | 5.00 | 3.6800 | 1.13600 |
| Q51 | 100 | 2.00 | 5.00 | 4.0800 | 1.10718 |
| Q52 | 100 | 1.00 | 5.00 | 3.2700 | 1.36222 |
| Q53 | 100 | 1.00 | 5.00 | 2.4900 | 1.59225 |
| Q54 | 100 | 1.00 | 5.00 | 3.3800 | 1.26953 |
| Q55 | 100 | 2.00 | 5.00 | 3.9000 | 1.11464 |
| Q56 | 100 | 2.00 | 5.00 | 3.9500 | 1.00880 |
| Q57 | 100 | 2.00 | 5.00 | 4.2600 | .90587  |
| Q58 | 100 | 1.00 | 5.00 | 3.1500 | 1.52670 |
| Q59 | 100 | 2.00 | 5.00 | 3.9600 | .88671  |
| Q60 | 100 | 2.00 | 5.00 | 4.0100 | .93738  |
| Q61 | 100 | 1.00 | 5.00 | 3.7600 | 1.28802 |
| Q62 | 100 | 1.00 | 5.00 | 2.8400 | 1.54867 |
| Q63 | 100 | 1.00 | 5.00 | 3.7200 | 1.16411 |
| Q64 | 100 | 1.00 | 5.00 | 3.5800 | 1.22417 |
| Q74 | 100 | 2.00 | 5.00 | 4.1500 | .85723  |
| Q75 | 100 | 1.00 | 5.00 | 3.9900 | 1.25927 |
| Q76 | 100 | 1.00 | 5.00 | 3.6000 | 1.26331 |
| Q77 | 100 | 1.00 | 5.00 | 3.4600 | 1.34405 |
| Q78 | 100 | 1.00 | 5.00 | 2.7300 | 1.48293 |
| Q79 | 100 | 1.00 | 5.00 | 3.8000 | 1.27920 |
| Q80 | 100 | 1.00 | 5.00 | 3.8300 | 1.34881 |
| Q81 | 100 | 2.00 | 5.00 | 3.9500 | .96792  |
| Q82 | 100 | 1.00 | 5.00 | 3.5700 | 1.24117 |

|                       |     |      |      |        |         |
|-----------------------|-----|------|------|--------|---------|
| Q83                   | 100 | 1.00 | 5.00 | 4.1100 | 1.17975 |
| Q84                   | 100 | 1.00 | 5.00 | 3.9700 | .99955  |
| Q85                   | 100 | 1.00 | 5.00 | 3.5500 | 1.27426 |
| Q86                   | 100 | 2.00 | 5.00 | 4.3300 | .87681  |
| Q87                   | 100 | 1.00 | 5.00 | 2.6000 | 1.62680 |
| Q92                   | 100 | 2.00 | 5.00 | 3.8200 | .92529  |
| Q93                   | 100 | 2.00 | 5.00 | 3.1900 | 1.16943 |
| Q94                   | 100 | 1.00 | 5.00 | 3.2300 | 1.42740 |
| Q95                   | 100 | 1.00 | 5.00 | 4.0400 | 1.20538 |
| Q96                   | 100 | 1.00 | 5.00 | 3.8100 | 1.20349 |
| Q97                   | 100 | 1.00 | 5.00 | 3.9400 | 1.10846 |
| Q100                  | 100 | 1.00 | 5.00 | 3.6500 | 1.18386 |
| Q101                  | 100 | 1.00 | 5.00 | 3.1000 | 1.56670 |
| Q102                  | 100 | 1.00 | 5.00 | 3.5000 | 1.32192 |
| Q103                  | 100 | 1.00 | 5.00 | 2.8500 | 1.49325 |
| Q108                  | 100 | 1.00 | 5.00 | 4.1300 | 1.21152 |
| Q109                  | 100 | 1.00 | 5.00 | 4.0400 | 1.17138 |
| Q112                  | 100 | 2.00 | 5.00 | 4.0500 | .97830  |
| Q113                  | 100 | 1.00 | 5.00 | 3.7200 | 1.17275 |
| Q114                  | 100 | 2.00 | 5.00 | 4.2400 | .96525  |
| Q115                  | 100 | 1.00 | 5.00 | 2.6400 | 1.51438 |
| Q116                  | 100 | 2.00 | 5.00 | 4.2800 | .93290  |
| Q117                  | 100 | 1.00 | 5.00 | 2.7600 | 1.51171 |
| Q118                  | 100 | 2.00 | 5.00 | 4.1000 | .81029  |
| Q119                  | 100 | 2.00 | 5.00 | 4.2000 | .91010  |
| Q120                  | 100 | 1.00 | 5.00 | 3.3600 | 1.32969 |
| Q121                  | 100 | 2.00 | 5.00 | 3.8800 | .96693  |
| Q122                  | 100 | 2.00 | 5.00 | 4.2000 | .97442  |
| Q123                  | 100 | 1.00 | 5.00 | 3.0800 | 1.34600 |
| Q124                  | 100 | 1.00 | 5.00 | 3.8200 | 1.19240 |
| Q125                  | 100 | 2.00 | 5.00 | 3.7200 | .99575  |
| Q126                  | 100 | 1.00 | 5.00 | 3.6000 | 1.19764 |
| Q127                  | 100 | 1.00 | 5.00 | 3.2800 | 1.33394 |
| Valid N<br>(listwise) | 100 |      |      |        |         |

## Descriptives

### Descriptive Statistics

|      | N   | Minimum | Maximum | Mean   | Std. Deviation |
|------|-----|---------|---------|--------|----------------|
| Q1A  | 100 | 1.00    | 5.00    | 3.6700 | .94340         |
| Q2A  | 100 | 2.00    | 5.00    | 3.7200 | .85375         |
| Q3A  | 100 | 2.00    | 5.00    | 3.5500 | .78335         |
| Q4A  | 100 | 2.00    | 5.00    | 3.9900 | .96917         |
| Q5A  | 100 | 1.00    | 5.00    | 3.3200 | 1.00383        |
| Q6A  | 100 | 1.00    | 5.00    | 3.3700 | 1.03138        |
| Q7A  | 100 | 1.00    | 5.00    | 3.3200 | .96274         |
| Q8A  | 100 | 1.00    | 5.00    | 3.3500 | 1.04809        |
| Q9A  | 100 | 2.00    | 5.00    | 3.8000 | .82878         |
| Q10A | 100 | 2.00    | 5.00    | 3.7200 | .81749         |
| Q11A | 100 | 1.00    | 5.00    | 3.1200 | 1.04717        |
| Q12A | 100 | 1.00    | 5.00    | 3.5700 | .98734         |
| Q13A | 100 | 2.00    | 5.00    | 3.6500 | .82112         |
| Q14A | 100 | 2.00    | 5.00    | 3.8500 | 1.01876        |
| Q15A | 100 | 2.00    | 5.00    | 3.5900 | .88871         |
| Q16A | 100 | 2.00    | 5.00    | 3.9900 | 1.02981        |
| Q17A | 100 | 2.00    | 5.00    | 3.5700 | .89052         |
| Q18A | 100 | 1.00    | 5.00    | 3.5900 | 1.07398        |
| Q19A | 100 | 1.00    | 5.00    | 3.2900 | 1.04731        |
| Q20A | 100 | 2.00    | 5.00    | 3.8400 | 1.01225        |
| Q21A | 100 | 2.00    | 5.00    | 3.8700 | .87219         |
| Q22A | 100 | 2.00    | 5.00    | 3.7300 | .94125         |
| Q23A | 100 | 3.00    | 5.00    | 4.1900 | .83720         |
| Q24A | 100 | 3.00    | 5.00    | 3.8000 | .81650         |
| Q25A | 100 | 2.00    | 5.00    | 3.6400 | .87062         |
| Q26A | 100 | 2.00    | 5.00    | 3.5100 | .93738         |
| Q27A | 100 | 2.00    | 5.00    | 3.4100 | .86568         |
| Q28A | 100 | 1.00    | 5.00    | 3.2900 | 1.03763        |
| Q29A | 100 | 3.00    | 5.00    | 3.9200 | .76118         |
| Q30A | 100 | 2.00    | 5.00    | 3.7500 | .84537         |
| Q31A | 100 | 2.00    | 5.00    | 3.5400 | .93657         |
| Q32A | 100 | 2.00    | 5.00    | 3.5700 | .92392         |
| Q33A | 100 | 3.00    | 5.00    | 4.1300 | .84871         |
| Q34A | 100 | 2.00    | 5.00    | 3.9500 | .90314         |
| Q35A | 100 | 2.00    | 5.00    | 4.0100 | .82260         |

|                       |     |      |      |        |        |
|-----------------------|-----|------|------|--------|--------|
| Q36A                  | 100 | 2.00 | 5.00 | 3.5400 | .88100 |
| Q37A                  | 100 | 2.00 | 5.00 | 3.7900 | .87957 |
| Q38A                  | 100 | 2.00 | 5.00 | 3.6900 | .86100 |
| Q39A                  | 100 | 3.00 | 5.00 | 4.0300 | .82211 |
| Valid N<br>(listwise) | 100 |      |      |        |        |

**T-Test****One-Sample Test**

|      | Test Value = 3 |    |                 |                    |                                              |        |
|------|----------------|----|-----------------|--------------------|----------------------------------------------|--------|
|      | t              | df | Sig. (2-tailed) | Mean<br>Difference | 95% Confidence Interval<br>of the Difference |        |
|      |                |    |                 |                    | Lower                                        | Upper  |
| q1a  | 7.102          | 99 | .000            | .67000             | .4828                                        | .8572  |
| q2a  | 8.433          | 99 | .000            | .72000             | .5506                                        | .8894  |
| q3a  | 7.021          | 99 | .000            | .55000             | .3946                                        | .7054  |
| q4a  | 10.215         | 99 | .000            | .99000             | .7977                                        | 1.1823 |
| q5a  | 3.188          | 99 | .002            | .32000             | .1208                                        | .5192  |
| q6a  | 3.587          | 99 | .001            | .37000             | .1654                                        | .5746  |
| q7a  | 3.324          | 99 | .001            | .32000             | .1290                                        | .5110  |
| q8a  | 3.339          | 99 | .001            | .35000             | .1420                                        | .5580  |
| q9a  | 9.653          | 99 | .000            | .80000             | .6356                                        | .9644  |
| q10a | 8.807          | 99 | .000            | .72000             | .5578                                        | .8822  |
| q11a | 1.146          | 99 | .255            | .12000             | -.0878                                       | .3278  |
| q12a | 5.773          | 99 | .000            | .57000             | .3741                                        | .7659  |
| q13a | 7.916          | 99 | .000            | .65000             | .4871                                        | .8129  |
| q14a | 8.343          | 99 | .000            | .85000             | .6479                                        | 1.0521 |
| q15a | 6.639          | 99 | .000            | .59000             | .4137                                        | .7663  |
| q16a | 9.613          | 99 | .000            | .99000             | .7857                                        | 1.1943 |
| q17a | 6.401          | 99 | .000            | .57000             | .3933                                        | .7467  |
| q18a | 5.494          | 99 | .000            | .59000             | .3769                                        | .8031  |

|      |        |    |      |         |        |        |
|------|--------|----|------|---------|--------|--------|
| q19a | 2.769  | 99 | .007 | .29000  | .0822  | .4978  |
| q20a | 8.298  | 99 | .000 | .84000  | .6391  | 1.0409 |
| q21a | 9.975  | 99 | .000 | .87000  | .6969  | 1.0431 |
| q22a | 7.756  | 99 | .000 | .73000  | .5432  | .9168  |
| q23a | 14.214 | 99 | .000 | 1.19000 | 1.0239 | 1.3561 |
| q24a | 9.798  | 99 | .000 | .80000  | .6380  | .9620  |
| q25a | 7.351  | 99 | .000 | .64000  | .4673  | .8127  |
| q26a | 5.441  | 99 | .000 | .51000  | .3240  | .6960  |
| q27a | 4.736  | 99 | .000 | .41000  | .2382  | .5818  |
| q28a | 2.795  | 99 | .006 | .29000  | .0841  | .4959  |
| q29a | 12.087 | 99 | .000 | .92000  | .7690  | 1.0710 |
| q30a | 8.872  | 99 | .000 | .75000  | .5823  | .9177  |
| q31a | 5.766  | 99 | .000 | .54000  | .3542  | .7258  |
| q32a | 6.169  | 99 | .000 | .57000  | .3867  | .7533  |
| q33a | 13.134 | 99 | .000 | 1.13000 | .9616  | 1.2984 |
| q34a | 10.519 | 99 | .000 | .95000  | .7708  | 1.1292 |
| q35a | 12.278 | 99 | .000 | 1.01000 | .8468  | 1.1732 |
| q36a | 6.129  | 99 | .000 | .54000  | .3652  | .7148  |
| q37a | 8.982  | 99 | .000 | .79000  | .6155  | .9645  |
| q38a | 8.014  | 99 | .000 | .69000  | .5192  | .8608  |
| q39a | 12.529 | 99 | .000 | 1.03000 | .8669  | 1.1931 |

## Reliability

\*\*\*\*\* Method 1 (space saver) will be used for  
this analysis \*\*\*\*\*

R E L I A B I L I T Y    A N A L Y S I S    -  
S C A L E    ( A L P H A )

Reliability Coefficients

N of Cases =        100.0

N of Items =170

Alpha =    .9083

## T-Test

### One-Sample Statistics

|    | N   | Mean   | Std. Deviation | Std. Error Mean |
|----|-----|--------|----------------|-----------------|
| H1 | 100 | 3.5629 | .89429         | .08943          |
| H2 | 100 | 3.4975 | .89858         | .08986          |
| H3 | 100 | 3.6855 | .91945         | .09194          |
| H4 | 100 | 3.6620 | .83700         | .08370          |
| H5 | 100 | 3.8771 | .81194         | .08119          |

### One-Sample Test

| Test Value = 3 |        |    |                 |                 |                                           |        |
|----------------|--------|----|-----------------|-----------------|-------------------------------------------|--------|
|                | t      | df | Sig. (2-tailed) | Mean Difference | 95% Confidence Interval of the Difference |        |
|                |        |    |                 |                 | Lower                                     | Upper  |
| H1             | 6.294  | 99 | .020            | .5629           | .3854                                     | .7403  |
| H2             | 5.537  | 99 | .000            | .4975           | .3192                                     | .6758  |
| H3             | 7.455  | 99 | .010            | .6855           | .5030                                     | .8679  |
| H4             | 7.909  | 99 | .010            | .6620           | .4959                                     | .8281  |
| H5             | 10.803 | 99 | .009            | .8771           | .7160                                     | 1.0383 |

## Reliability

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

Reliability Coefficients

N of Cases = 100.0      N of Items = 7      Alpha = .8830

## Reliability

\*\*\*\*\* Method 1 (space saver) will be used for this analysis \*\*\*\*\*

R E L I A B I L I T Y    A N A L Y S I S    -  
S C A L E    ( A L P H A )

Reliability Coefficients

N of Cases = 100.0      N of Items = 4      Alpha = .8669

## Reliability

```
***** Method 1 (space saver) will be used for
this analysis *****
```

# RELIABILITY ANALYSIS - SCALE (ALPHA)

## Reliability Coefficients

N of Cases = 100.0    N of Items = 11    Alpha = .9098

## Reliability

```
***** Method 1 (space saver) will be used for
this analysis *****
```

# RELIABILITY ANALYSIS - SCALE (ALPHA)

## Reliability Coefficients

N of Cases = 100.0    N of Items = 10    Alpha = .8865

## Reliability

```
***** Method 1 (space saver) will be used for
this analysis *****
```

RELIABILITY ANALYSIS -  
SCALE (ALPHA)

## Reliability Coefficients

N of Cases = 100.0                      N of Items = 7

Alpha = .8796